

us-09-622-613b-4.rag

GenCore version 5.1.6
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ein search, using sw model

June 25, 2003, 14:20:41 ; Search time 31.2 Seconds
(without 'algorithms')

444.169 Million cell updates/sec

S-09-622-613B-4
70

QDWLTFOKKHLTNRDVDCN.....TECVTCENQAPVHFGVGHC 104

LOSUM62 0 Convert 0 E

08470 seqs, 133250620 residues

its satisfying chosen parameters: 908470

```
length: 0
length: 2000000000
```

Minimum	Match	0%
---------	-------	----

Listing first 45 summaries

es the number of results predicted by chance to have a
 than or equal to the score of the result being printed
 ed by analysis of the total score distribution.

SUMMARIES

Query	Length	DB	ID	Description
98.6	104	20	AAV28866	Recombinant Rapi1
98.6	105	20	AAV28869	Recombinant Met(-1
98.3	104	20	AAV28865	Rana pipiens liver
98.3	105	20	AAV28867	Recombinant Met(-1
98.3	127	20	AAV28879	Rana pipiens Clone
97.4	104	20	AAV28870	Recombinant Rapi1
97.4	105	20	AAV28871	Recombinant Met(-1
94.8	104	18	AAW0544	Antinour protein
94.5	104	18	AAW30301	Recombinant onc pr
94.5	104	22	AAH31666	Amino acid sequenc

evidence that seq in PCT/0599/06641 and US application
do not match

11	547	94.5	379	18	AAW351266
12	546	94.3	104	18	AAW303002
13	544	94.0	104	12	AAW123444
14	544	94.0	104	15	AAW473003
15	544	94.0	104	17	AAW00736
16	544	94.0	104	18	AAW065633
17	544	94.0	104	18	AAW140655
18	544	94.0	104	20	AAW333222
19	544	94.0	104	20	AAW882333
20	544	94.0	104	22	AAW316667
21	544	94.0	105	18	AAW351200
22	544	94.0	105	20	AAW1394000
23	544	94.0	355	18	AAW3512525
24	544	94.0	358	18	AAW351300
25	542	93.6	106	18	AAW351222
26	542	93.6	107	18	AAW351177
27	542	93.6	112	18	AAW35118
28	542	93.6	251	18	AAW35118
29	542	93.6	254	18	AAW351353
30	542	93.6	355	18	AAW35129
31	542	93.6	355	18	AAW351333
32	542	93.6	366	18	AAW351333
33	539	93.1	104	18	AAW1822244
34	537	92.7	105	18	AAW351115
35	537	92.7	105	18	AAW35116
36	533	92.1	358	18	AAW35127
37	533	92.1	365	18	AAW35131
38	518	89.5	107	18	AAW35120
39	481	83.1	360	18	AAW35128
40	474.5	82.0	111	18	AAW35128
41	436	75.3	83	18	AAW35119
42	436	75.3	83	20	AAW86233
43	283	48.9	111	20	AAW33322
44	276.5	47.8	110	20	AAW128874
45	276.5	47.8	111	20	AAW128874

ALIGNMENTS

RESULT	1
AA028866	
ID	AA028866 standard; Protein: 104 AA.
XX	
AC	AA028866;
XX	
DT	25-JAN-2000 (first entry)
DE	
XX	Recombinant RatPRL Mel23leu amino acid sequence.
XX	
KW	Recombinant Rana pipiens ribonuclease; RatPRL Mel23leu;
KW	Liz antibody; ligand binding moiety; CD22; cancerous B c
KW	Rapost's sarcoma; human chorionic gonadotropin; hCG; s
KW	recombinant ribonuclease; cytotoxic fusion protein; can
KW	autoimmune disease.
XX	
OS	Rana pipiens.
OS	Synthetic.
XX	
FH	Key
FH	Location/Qualifiers
FT	Misc-difference 23
FT	/note= "Wild type Met replaced with Leu"
PN	WO950398-A2.
PD	
PD	07-OCT-1999.
XX	
PF	26-MAR-1999; 99MO-US06641.
XX	
PR	27-MAR-1998; 98US-0079751.
XX	
PA	(USSH) US DEPT HEALTH & HUMAN SERVICES.
XX	

[illegible]

PI Newton DL, Rybak SM;
XX
XX MPI: 1999-610847/52.
DR N-PSDB: AA208125.
XX
PT New recombinant ribonucleases, used for killing target cells, e.g. for
XX treating cancers, viral infections or autoimmune diseases .
XX
PS Claim 34; Page 56; 71pp; English.
XX
CC The present sequence is a recombinant Rana pipiens ribonuclease (RapLRI)
CC protein with Met3Leu. Carboxy terminal end of recombinant RapLRI has a
CC covalently bound ligand binding moiety, which can be a LL2 antibody
CC directed against CD22 on cancerous B cells or human chorionic
CC gonadotropin (hCG) effective against Kaposi's sarcoma cells. Recombinant
CC ribonucleases can be expressed in bacteria without an N-terminal
CC methionine due to the presence of a signal peptide that is cleaved by
CC bacteria. The soluble expression of ribonuclease allows the proteins to
CC be fused in-frame with ligand binding moieties to form cytotoxic fusion
CC proteins. They can be used for treatment of cancer and autoimmune
XX diseases.
XX
XX Sequence 104 AA:
Query Match 98.6%; Score 571; DB 20; Length 104;
Best Local Similarity 99.0%; Pred. No. 2,4e-62;
Matches 103; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
DB 1 ODMLEFQKKHLNTRDVCNNILSTNLFHCKDKNTFTYSRPPVKAICGIIASKNVLT 60
1 ODMLEFQKKHLNTRDVCNNILSTNLFHCKDKNTFTYSRPPVKAICGIIASKNVLT 60
QY 61 FEFYLSDCNVTSRPCKYKLRKSTNFCVTCENQAPVHFVGHC 104
61 FEFYLSDCNVTSRPCKYKLRKSTNFCVTCENQAPVHFVGHC 104
DB 61 SEFYLSDCNVTSRPCKYKLRKSTNFCVTCENQAPVHFVGHC 104
RESULT 2
AAV28869
ID AAV28869 standard; Protein: 105 AA.
XX
XX AAV28869;
AC
XX
DT 25-JAN-2000 (first entry)
XX
DE Recombinant Met(-1) RapLRI Met3Leu-(His)6 protein.
XX
KW Recombinant Met(-1) Rana pipiens ribonuclease Met3Leu-(His)6; RapLRI;
KW CD22; covalently bound; LL2 antibody; ligand binding moiety; RNase;
KW cancerous B cell; Kaposi's sarcoma; human chorionic gonadotropin; hCG;
KW signal peptide; recombinant ribonuclease; cytotoxic fusion protein;
KW cancer; frog; autoimmune disease.
OS Rana pipiens.
OS Synthetic.
XX
XX Key Location/Qualifiers
FH Misc-difference 1 /note= "(His)6 histidine tag attached to N-terminal Met"
FT Misc-difference 1 /note= "Met not found in wild type RapLRI"
FT Misc-difference 24 /note= "Wild type Met replaced with Leu"
FT
XX
XX WO950398-A2.
XX
XX PD 07-OCT-1999.
XX
XX PE 26-MAR-1999; 99WO-US06641.
XX
XX PR 27-MAR-1998; 98US-0079751.
XX
XX (USSH) US DEPT HEALTH & HUMAN SERVICES.

XX
XX Newton DL, Rybak SM;
XX
XX MPI: 1999-610847/52.
DR N-PSDB: AA208127.
XX
PT New recombinant ribonucleases, used for killing target cells, e.g. for
XX treating cancers, viral infections or autoimmune diseases .
XX
PS Claim 4; Page 59; 71pp; English.
XX
CC The present sequence is a recombinant Rana pipiens ribonuclease protein
CC (RapLRI) with Met at position 1 attached to (His)6 tag and Met24Leu.
CC Carboxy terminal end of recombinant RapLRI has a covalently bound ligand
CC binding moiety, which can be a LL2 antibody directed against CD22 on
CC cancerous B cells or human chorionic gonadotropin (hCG) effective
CC against Kaposi's sarcoma cells. Recombinant ribonucleases can be
CC expressed in bacteria without an N-terminal methionine due to the
CC presence of a signal peptide that is cleaved by bacteria. The soluble
CC expression of ribonuclease allows the proteins to be fused in-frame with
CC ligand binding moieties to form cytotoxic fusion proteins. They can be
CC used for treatment of cancer and autoimmune diseases.
XX
XX Sequence 105 AA:
Query Match 98.6%; Score 571; DB 20; Length 105;
Best Local Similarity 99.0%; Pred. No. 2,4e-62;
Matches 103; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
DB 2 ODMLEFQKKHLNTRDVCNNILSTNLFHCKDKNTFTYSRPPVKAICGIIASKNVLT 61
1 ODMLEFQKKHLNTRDVCNNILSTNLFHCKDKNTFTYSRPPVKAICGIIASKNVLT 60
QY 61 FEFYLSDCNVTSRPCKYKLRKSTNFCVTCENQAPVHFVGHC 104
61 FEFYLSDCNVTSRPCKYKLRKSTNFCVTCENQAPVHFVGHC 104
DB 62 SEFYLSDCNVTSRPCKYKLRKSTNFCVTCENQAPVHFVGHC 105
RESULT 3
AAV28865
ID AAV28865 standard; Protein: 104 AA.
XX
XX AAV28865;
AC
XX
DT 25-JAN-2000 (first entry)
XX
DE Rana pipiens liver ribonuclease (RapLRI).
XX
XX Rana pipiens liver ribonuclease; RapLRI; covalently bound; LL2 antibody;
XX ligand binding moiety; CD22; cancerous B cell; Kaposi's Sarcoma; frog;
KW human chorionic gonadotropin; hCG; recombinant ribonuclease; RNase;
KW signal peptide; cytotoxic fusion protein; cancer; autoimmune disease.
XX
XX Rana pipiens.
OS
XX
XX WO950398-A2.
XX
XX PD 07-OCT-1999.
XX
XX PE 26-MAR-1999; 99WO-US06641.
XX
XX PR 27-MAR-1998; 98US-0079751.
XX
XX (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
XX Newton DL, Rybak SM;
XX
XX MPI: 1999-610847/52.
DR N-PSDB: AA208124.
XX
PT New recombinant ribonucleases, used for killing target cells, e.g. for
XX treating cancers, viral infections or autoimmune diseases .

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OM protein - protein search, using sw model

Run on: June 25, 2003, 14:20:41 ; Search time 31.5 Seconds

(without alignments)
444.169 Million cell updates/sec

Title: US-09-622-613b-8

Perfect score: 582
Sequence: 1 HQDWLTFQKHILNTRDVC.....TFQVTCENQAPYHFVGVGHC 105

Scoring table: HIOSUM62

Gapop 10.0, Gapext 0.5

Number of hits satisfying chosen parameters: 908470

Total number of hits satisfying chosen parameters: 908470

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

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Pred. NO. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	567	97.4	105	20	AA28869
2	565	97.1	105	20	AA28867
3	562	96.6	104	20	AA28866
4	560	96.2	104	20	AA28865
5	560	96.2	105	20	AA28871
6	560	96.2	127	20	AA28879
7	555	95.4	104	20	AA28870
8	540	92.8	104	18	AA06544
9	540	92.8	105	18	AAW5123
10	540	92.8	105	20	AA39400

11	540	92.8	355	18	AAW5125
12	540	92.8	358	18	AAW5130
13	538	92.4	104	18	AAW30301
14	538	92.4	104	22	AAW31666
15	538	92.4	112	18	AAW35118
16	538	92.4	251	18	AAW35134
17	538	92.4	355	18	AAW35135
18	538	92.4	355	18	AAW35129
19	538	92.4	355	18	AAW35133
20	538	92.4	366	18	AAW35132
21	538	92.4	379	18	AAW35126
22	537	92.3	104	18	AAW30302
23	535	91.9	104	12	AAW12344
24	535	91.9	104	15	AAW47303
25	535	91.9	104	17	AAW00736+
26	535	91.9	104	18	AAW06543
27	535	91.9	104	18	AAW14065
28	535	91.9	104	20	AAW33322
29	535	91.9	104	20	AAW88233
30	535	91.9	104	22	AAW31667
31	533	91.6	105	18	AAW35116
32	533	91.6	106	18	AAW35122
33	533	91.6	107	18	AAW35117
34	532	91.4	105	18	AAW35115
35	530	91.1	104	18	AAW18224
36	529	90.9	358	18	AAW35127
37	529	90.9	365	18	AAW35131
38	510	87.6	107	18	AAW35120
39	477	82.0	360	18	AAW35128
40	465.5	80.0	111	18	AAW35121
41	427	73.4	83	18	AAW35119
42	427	73.4	83	20	AAW88234
43	274	47.1	111	20	AAW33321
44	272.5	46.8	111	20	AAW28876
45	271.5	46.6	111	20	AAW28873

ALIGNMENTS

RESULT 1	
AA28869	
ID	AA28869 standard; Protein; 105 AA.
XX	
AC	AA28869;
XX	
DT	25-JAN-2000 (first entry)
XX	
DE	Recombinant Met(-1) RapL1 Met23Leu-(His)6 protein.
XX	
KW	Recombinant Met(-1) Rana pipiens ribonuclease Met23Leu-(His)6; RapL1;
KW	CD22; covalently bound; IL2 antibody; ligand binding moiety; RNase;
KW	cancerous B cell; Kapost's sarcoma; human chorionic gonadotropin; HCG;
KW	signal peptide; recombinant ribonuclease; cytotoxic fusion protein;
KW	cancer; frog; autoimmune disease.
XX	
OS	Rana pipiens.
XX	
XX	Synthetic.
FT	
FT	Key
FT	Misc-difference 1
FT	/note= "(His)6 histidine tag attached to N-terminal Met"
FT	Misc-difference 1
FT	/note= "Met not found in wild type RapL1"
FT	Misc-difference 24
FT	/note= "Wild type Met replaced with Leu"
PN	W09950398-A2.
XX	
PD	07-OCT-1999.
XX	
XX	26-MAR-1999; 99WO-US06641.
XX	

R. pipiens recombi
R. pipiens recombi
Recombinant onc pr
Amino acid sequenc
R. pipiens recombi
R. pipiens recombi
R. pipiens recombi
R. pipiens recombi
R. pipiens recombi
R. pipiens recombi
R. pipiens recombi
Recombinant onc pr
Protein with activ
ONCONASE (pharmace
Protein derived fr
Antitumour protein
Onconase (RTM) pro
Frog onconase prot
Rana pipiens RNase
Amino acid sequenc
R. pipiens recombi
R. pipiens recombi
R. pipiens recombi
R. pipiens recombi
Antitumour generi
R. pipiens recombi
R. pipiens recombi
R. pipiens recombi
R. pipiens recombi
R. pipiens recombi
R. pipiens clone R
Rana pipiens RNase
Frog lectin protei
Recombinant Met(-1
Recombinant Met(-1

XX	PS	Claim 22; Page 62; 71pp: English.
XX	CC	The present sequence is a Rana catesbeiana oocyte ribonuclease (RacOR1)
XX	CC	protein encoded by a cDNA modified for expression in E. coli. Carboxy-
XX	CC	terminal end of RacOR1 has a covalently bound ligand binding moiety,
XX	CC	which can be a IL2 antibody directed against CD22 on cancerous B cells
XX	CC	or human chorionic gonadotropin (hCG) effective against Kaposi's
XX	CC	Sarcoma cells. Recombinant ribonucleases can be expressed in bacteria
XX	CC	without an N-terminal methionine due to the presence of a signal peptide
XX	CC	that is cleaved by bacteria. The soluble expression of ribonucleases
XX	CC	allows the proteins to be fused in-frame with ligand moieties to
XX	CC	form cytotoxic fusion proteins. They can be used for treatment of cancer
XX	CC	and autoimmune diseases.
XX	XX	Sequence 110 AA:
XX	QY	Query Match 98.3%; Score 596; DB 20; Length 110;
XX	Db	Best Local Similarity 99.1%; Pred. No. 3e-61;
XX	Matches 109; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	
XX	QY	2 QNMTFPOOKHILNPTICNTIMDNINIVYGQCKRVTTFTIISATYVKA:CTGVINMNVL 61
XX	Db	1 QNMTFPOOKHILNPTICNTIMDNINIVYGQCKRVTTFTIISATYVKA:CTGVINMNVL 60
XX	QY	62 STTFPOULTCRRTSITPRCPYSSRTETNYICVGCENGYRPHFAGIGRCP 111
XX	Db	61 STTFPOULTCRRTSITPRCPYSSRTETNYICVGCENGYRPHFAGIGRCP 110
XX	RESULT 3	
XX	AA28878	AA28878 standard; Protein: 111 AA.
XX	AA28878;	
XX	DT	25-JAN-2000 (first entry)
XX	DE	Recombinant Met(-1) RacOR1 Gln1Ser amino acid sequence.
XX	XX	
XX	XX	Recombinant Met(-1) Rana catesbeiana oocyte ribonuclease Gln1Ser; RacOR1;
XX	KW	covalently bound; IL2 antibody; ligand binding moiety; cancerous B cell;
XX	KW	Kaposi's sarcoma; human chorionic gonadotropin; hCG; signal peptide;
XX	KW	recombinant ribonuclease; cytotoxic fusion protein; cancer; bullfrog;
XX	XX	CD22; RNase; autoimmune disease.
XX	OS	Rana catesbeiana.
XX	OS	Synthetic.
XX	XX	
XX	XX	
XX	FT	Key Location/Qualifiers
XX	FT	Misc-difference 1 /note= "Met not found in wild type RacOR1"
XX	FT	Misc-difference 2 /note= "Wild type Gln replaced with Ser"
XX	PN	W09950398-A2.
XX	PD	07-OCT-1999.
XX	PF	26-MAR-1999; 99WO-US06641.
XX	PR	27-MAR-1998; 98US-0079751.
XX	PA	(USSH) US DEPT HEALTH & HUMAN SERVICES.
XX	PI	Newton DL, Rybak SM;
XX	DR	WPI; 1999-610847/52.
XX	DR	N-PSDB; AA208135.
XX	PT	New recombinant ribonucleases, used for killing target cells
XX	XX	treatling cancers, viral infections or autoimmune diseases

Wed Jun 25 15:53:44 2003

us-09-622-613b-19.rag

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OM protein - protein search, using sw model

Run on: June 25, 2003, 14:20:41 ; Search time 33 Seconds

(without alignments)
444.169 Million cell updates/sec

Title: US-09-622-613B-19

Perfect score: 599

Sequence: 1 QNATPQKHKIKPIICNT.....ICVCKENQYVHFAGIGRCP 110

Scoring table:

BLOSUM62
Gapop 10.0 , Gapext 0.5

Arched: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 908470

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database :

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23: /SID2/gcgdata/geneseq/geneseq-emb1/AA2002.DAT:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Match	Length	ID	Description
1	594	99.2	110	AA128874	Recombinant RacOR1
2	594	99.2	111	AA128876	Recombinant Met(-1
3	590	98.5	110	AA128872	Rana catesbeiana o
4	590	98.5	111	AA128873	Recombinant Met(-1
5	585	97.7	110	AA128877	Recombinant RacOR1
6	585	97.7	111	AA128878	Recombinant Met(-1
7	576.5	96.2	111	AA133321	Frog lectin protein
8	274.5	45.8	104	AAW06544	Antitumour protein
9	273.5	45.7	104	AA128866	Recombinant RapR1
10	273.5	45.7	105	AA128869	Recombinant Met(-1

11	271.5	45.3	104	AA128865	Rana catesbeiana
12	271.5	45.3	105	AA128867	Recombinant Met(-1
13	271.5	45.3	127	AA128879	Rana catesbeiana
14	267.5	44.7	104	AAW30301	Antitumour protein
15	267.5	44.7	104	AA131666	Recombinant Met(-1
16	267.5	44.7	104	AA131667	Recombinant Met(-1
17	267.5	44.7	105	AA139400	Recombinant Met(-1
18	267.5	44.7	379	AAW35126	Recombinant Met(-1
19	266.5	44.5	104	AAW30302	Recombinant Met(-1
20	266.5	44.5	104	AA128870	Recombinant Met(-1
21	266.5	44.5	105	AA128871	Recombinant Met(-1
22	264.5	44.2	104	AA12344	Protein with activ
23	264.5	44.2	104	AA12343	ONCONASE (pharmace
24	264.5	44.2	104	AA12342	Protein derived fr
25	264.5	44.2	104	AAW06543	Antitumour protein
26	264.5	44.2	104	AAW14065	Onconase (RTM) pro
27	264.5	44.2	104	AAW33322	Frog onconase prot
28	264.5	44.2	104	AAW88233	Rana pipiens RNase
29	264.5	44.2	105	AAW35123	R. pipiens recombi
30	264.5	44.2	355	AAW35125	R. pipiens recombi
31	264.5	44.2	358	AAW35130	R. pipiens recombi
32	262.5	43.8	106	AAW35122	R. pipiens recombi
33	262.5	43.8	107	AAW35117	R. pipiens recombi
34	262.5	43.8	112	AAW35118	R. pipiens recombi
35	262.5	43.8	251	AAW35134	R. pipiens recombi
36	262.5	43.8	254	AAW35135	R. pipiens recombi
37	262.5	43.8	355	AAW35129	R. pipiens recombi
38	262.5	43.8	355	AAW35133	R. pipiens recombi
39	262.5	43.8	366	AAW35132	R. pipiens recombi
40	257.5	43.0	104	AAW18224	Antitumour protein
41	257.5	43.0	105	AAW35115	R. pipiens recombi
42	257.5	43.0	105	AAW35116	R. pipiens recombi
43	253.5	42.3	358	AAW35127	R. pipiens recombi
44	253.5	42.3	365	AAW35131	R. pipiens recombi
45	239.5	40.0	107	AAW35120	R. pipiens recombi

ALIGNMENTS

RESULT 1	
AA128874	AA128874 standard; Protein: 110 AA.
XX	
AC	AA128874:
XX	
DT	25-JAN-2000 (first entry)
XX	
DE	Recombinant RacOR1 Met22Leu amino acid sequence.
XX	
KW	Recombinant Rana catesbeiana oocyte ribonuclease; covalently bound
KW	RacOR1 Met22Leu Met57Leu; IL2 antibody; ligand binding moiety; CD22
KW	cancerous B cell; Kaposi's sarcoma; human chorionic gonadotropin; hCG;
KW	signal peptide; recombinant ribonuclease; cytotoxic fusion protein
KW	cancer; bullfrog; RNase; autoimmune disease.
XX	
OS	Rana catesbeiana.
OS	Synthetic.
XX	
PH	Key
FT	Misc-difference 22
FT	/note- "Wild type Met replaced with Leu"
FT	Misc-difference 57
FT	/note- "Wild type Met replaced with Leu"
XX	
PN	W09950398-A2.
XX	
PD	07-OCT-1999.
XX	
XX	26-MAR-1999: 99NO-US06641.
XX	
PR	27-MAR-1998: 98US-0079751
XX	

PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Newton DL, Rybak SM;
XX
DR WPI: 1999-610847/52.
DR N-PSDB: AA208132.
XX
PT New recombinant ribonucleases, used for killing target cells, e.g. for
PT treating cancers, viral infections or autoimmune diseases
XX
PS Claim 22: Page 64: 71pp: English.
XX
CC The present sequence is a recombinant Rana catesbeiana oocyte
CC ribonuclease (RacOR1) protein with Met22Leu Met57Leu. Carboxy terminal
CC end of recombinant RacOR1 has a covalently bound ligand binding moiety,
CC which can be a LL2 antibody directed against CD22 on cancerous B cells
CC or human chorionic gonadotropin (hCG) effective against Kaposi's sarcoma
CC cells. Recombinant ribonucleases can be expressed in bacteria without an
CC N-terminal methionine due to the presence of a signal peptide that is
CC cleaved by bacteria. The soluble expression of ribonuclease allows the
CC proteins to be fused in-frame with ligand binding moieties to form
CC cytotoxic fusion proteins. They can be used for treatment of cancer and
CC autoimmune diseases.

SO Sequence 110 AA:
Query Match 99.2%; Score 594; DB 20; Length 110;
Best Local Similarity 99.1%; Pred. No. 2,1e-60;
Matches 109; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 QNMATFOQKH IKPPIICNTILDNNIYIVGGCKRVNFTFISSATTVKALCTGVINLNL 60
DB 1 QNMATFOQKH INPPIICNTILDNNIYIVGGCKRVNFTFISSATTVKALCTGVINLNL 60
QY 61 STTRFOLNCTRTSITPRCPYSSRTETNYICVCKENQYPVHFGIGRCP 110
DB 61 STTRFOLNCTRTSITPRCPYSSRTETNYICVCKENQYPVHFGIGRCP 110

RESULT 2
AA28876
ID AAY28876 standard; Protein: 111 AA.
XX
AC AAY28876;
XX
DT 25-JAN-2000 (first entry)
XX
DE Recombinant Met(-1) RacOR1 Met22Leu Met57Leu-(His)6 protein.
XX
KW Met(-1) Rana catesbeiana ribonuclease Met22Leu Met57Leu-(His)6; RacOR1;
KW recombinant; CD22; covalently bound; LL2 antibody; ligand binding moiety;
KW cancerous B cell; Kaposi's sarcoma; human chorionic gonadotropin; hCG;
KW signal peptide; recombinant ribonuclease; cytotoxic fusion protein;
KW cancer; bullfrog; RNase; autoimmune disease.
XX
OS Rana catesbeiana.
OS Synthetic.
XX
FH Key Location/Qualifiers
FT MISC-difference 1 /note= "(His)6 histidine tag attached to N-terminal Met"
FT MISC-difference 1 /note= "Met not found in wild type RacOR1"
FT MISC-difference 23 /note= "Wild type Met replaced with Leu"
FT MISC-difference 58 /note= "Wild type Met replaced with Leu"
XX
PN WO9950398-A2.
XX
PD 07-OCT-1999.
XX
PF 26-MAR-1999; 99WO-US06641.

XX
PR 27-MAR-1998; 98US-0079751.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Newton DL, Rybak SM;
XX
DR WPI: 1999-610847/52.
DR N-PSDB: AA208133.
XX
PT New recombinant ribonucleases, used for killing target cells, e.g. for
PT treating cancers, viral infections or autoimmune diseases
XX
PS Claim 22: Page 66: 71pp: English.
XX
CC The present sequence is a recombinant Rana catesbeiana oocyte
CC ribonuclease (RacOR1) protein with Met at position 1 attached to a
CC (His)6 tag, Met23Leu and Met58Leu. Carboxy terminal end of recombinant
CC RacOR1 has a covalently bound ligand binding moiety, which can be a LL2
CC antibody directed against CD22 on cancerous B cells or human chorionic
CC gonadotropin (hCG) effective against Kaposi's sarcoma cells. Recombinant
CC ribonucleases can be expressed in bacteria without an N-terminal
CC methionine due to the presence of a signal peptide that is cleaved by
CC bacteria. The soluble expression of ribonuclease allows the proteins to
CC be fused in-frame with ligand binding moieties to form cytotoxic fusion
CC proteins. They can be used for treatment of cancer and autoimmune
CC diseases.

SO Sequence 111 AA:
Query Match 99.2%; Score 594; DB 20; Length 111;
Best Local Similarity 99.1%; Pred. No. 2,1e-60;
Matches 109; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 QNMATFOQKH IKPPIICNTILDNNIYIVGGCKRVNFTFISSATTVKALCTGVINLNL 60
DB 2 QNMATFOQKH INPPIICNTILDNNIYIVGGCKRVNFTFISSATTVKALCTGVINLNL 61
QY 61 STTRFOLNCTRTSITPRCPYSSRTETNYICVCKENQYPVHFGIGRCP 110
DB 62 STTRFOLNCTRTSITPRCPYSSRTETNYICVCKENQYPVHFGIGRCP 111

RESULT 3
AA28872
ID AAY28872 standard; Protein: 110 AA.
XX
AC AAY28872;
XX
DT 25-JAN-2000 (first entry)
XX
DE Rana catesbeiana oocyte ribonuclease (RacOR1) amino acid sequence.
XX
KW Rana catesbeiana oocyte ribonuclease; RacOR1; covalently bound; CD22;
KW LL2 antibody; ligand binding moiety; cancerous B cell; Kaposi's sarcoma;
KW human chorionic gonadotropin; hCG; recombinant ribonuclease; bullfrog;
KW signal peptide; cytotoxic fusion protein; cancer; autoimmune disease;
KW RNase.
XX
OS Rana catesbeiana.
OS Synthetic.
XX
FH Key Location/Qualifiers
FT MISC-difference 1 /note= "(His)6 histidine tag attached to N-terminal Met"
FT MISC-difference 1 /note= "Met not found in wild type RacOR1"
FT MISC-difference 23 /note= "Wild type Met replaced with Leu"
FT MISC-difference 58 /note= "Wild type Met replaced with Leu"
XX
PN WO9950398-A2.
XX
PD 07-OCT-1999.
XX
PF 26-MAR-1999; 99WO-US06641.
XX
PR 27-MAR-1998; 98US-0079751.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Newton DL, Rybak SM;